REMARKS

Amendments to the specification have been made and are submitted herewith in the attached Substitute Specification. A clean copy of the specification and a marked-up version showing the changes made are attached herewith. The claims and abstract have been amended in the attached Preliminary Amendment. All amendments have been made to place the application in proper U.S. format and to conform with proper grammatical and idiomatic English. None of the amendments herein are made for reasons related to patentability. No new matter has been added.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned "**Version with markings to show changes made**".

In the unlikely event that the transmittal letter is separated from this document and the Patent Office determines that an extension and/or other relief is required, applicant petitions for any required relief including extensions of time and authorizes the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 03-1952** referencing docket no. 449122014800. However, the Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

Respectfully submitted,

Dated: April 1, 2002

Kevin R. Spivak
Registration No. 43,148

Morrison & Foerster LLP
2000 Pennsylvania Avenue, N.W.
Washington, D.C. 20006-1888
Telephone: (202) 887-6924
Facsimile: (202) 263-8396

VERSION WITH MARKINGS TO SHOW CHANGES MADE

For the convenience of the Examiner, the changes made are shown below with delcted text in strikethrough and added text in underline.

In the Claims:

~~Patent claims~~

What is claimed is:

1. (Amended) A method for producing at least one signal ~~(oscillation signal Pd)~~, which indicates an oscillation in an electrical power supply system, ~~in which method~~ comprising:

~~the~~ sampling a phase current and ~~the~~ a phase voltagc ~~are in each case sampled~~ from at least one phase of the power supply system, forming phase current and phase voltage sample values ~~(i, u),~~;

forming impedance values ~~are formed~~ from the phase current and phase voltage sample values~~,~~;

monitoring the impedance values ~~are monitored~~ for ~~the presence of any~~ an oscillation and, if an oscillation is identified, at least one memory element ~~(Sp)~~ is set, and the oscillation signal ~~(Pd)~~ is output ~~at its output,~~;

~~after setting the memory element (Sp),~~ checking other ~~further~~ impedance values ~~are checked~~ to determine whether the oscillation ~~that has been found~~ is still continuing after setting the memory element~~,~~; and

~~the memory element (Sp) remains uninfluenced if the oscillation continues, and~~ rcsctting the memory element ~~is reset~~ if the oscillation has stopped, wherein

~~characterized in that~~

the check of the ~~further~~ other impedance values ~~makes use of~~ uses an oscillation model which is formed from previous impedance values associated with the oscillation, or from variables which are dependent on ~~these~~ the impedance values,

a check is ~~carried out~~ performed to determine whether ~~a further~~ other impedance values formed ~~at that time~~ or a variable which is dependent on ~~this further~~ the othcr impcdance values differ from the oscillation model, and

~~any~~ an occurrence of ~~a further~~ other impedance values or of a variable dependent on ~~this~~ the impedance values which differs from the oscillation model is assessed as the oscillation having stopped.

2. (Amended) The method as claimed in claim 1, wherein ~~characterized in that~~ the oscillation model is determined by means of a least squares estimation method.

3. (Amended) The method as claimed in claim 2, wherein ~~characterized in that~~

a function in the form $f(x)=ax^3+bx^2+cx+d$ with the parameters a, b, c and d, for which one or more parameters can be defined to be zero from the start, or

a sum of decaying sine and cosine functions is used as the model rule for the oscillation model.

4. (Amended) The method as claimed in ~~one of claims 1 to 3, characterized in that~~ claim 1, wherein resistance values ~~(R)~~ are used as the variable dependent on the impedance values.

5. (Amended) The method as claimed in ~~one of claims 1 to 3, characterized in that~~ claim 1, wherein reactance values ~~(X)~~ are used as the variable dependent on the impedance values.

6. (Amended) The method as claimed in ~~one of claims 1 to 3, characterized in that~~ claim 1, wherein time derivative values ~~(dZ/dt)~~ of the impedance are used as the variable dependent on the impedance values.

7. (Amended) The method as claimed in ~~one of claims 1 to 3, characterized in that~~ claim 1, wherein time derivative values ~~(dR/dt)~~ of a resistance are used as the variable dependent on the impedance values.

8. (Amended) The method as claimed in ~~one of claims 1 to 3, characterized in that~~ claim 1, wherein time derivative values ~~(dX/dt)~~ of a reactance are used as the variable dependent on the impedance values.

9. (Amended) The method as claimed in ~~one of claims 1 to 8, characterized in that~~ claim 1, wherein positive phase sequence system impedance values are formed from the phase current and phase voltage sample values ~~(i, u)~~, and a common memory element ~~(Sp)~~ is provided, and a common oscillation signal ~~(Pd)~~ is produced, for all the phases in the power supply system.

10. (Amended) The method as claimed in ~~one of claims 1 to 8, characterized in that~~ claim 1, wherein phase impedance values are formed from the phase current and phase voltage sample values ~~(i, u)~~ of each phase of the power supply system to be investigated for oscillation, and a dedicated memory element ~~(Sp)~~ is provided, and a dedicated oscillation signal ~~(Pd)~~ is produced, for each of these phases.

11. (Amended) The method as claimed in claim 10, ~~characterized in that~~ wherein ~~in order to form the phase impedance values,~~

a variable U_re ~~containing~~ including the real part of the phase voltage sample values, a variable U_im ~~containing~~ including the imaginary part of the phase voltage sample values, a variable I_re ~~containing~~ including the real part of the phase current sample values and a variable I_im ~~containing~~ including the imaginary part of the phase current sample values are formed from the phase current and phase voltage sample values ~~(i, u)~~ for each phase,

a phase real power variable P is determined from $P = U\_re \cdot I\_re - U\_im \cdot I\_im$,

a phase Wattless component variable Q is determined from $Q = U\_im \cdot I\_re + U\_im \cdot I\_re$,

a squared phase current amplitude variable I^2 is determined from $I^2 = I\_re \cdot I\_re + I\_im \cdot I\_im$,

system-frequency components are ~~in each case~~ removed by means of a least squares estimation method from the phase real power variable P, from the phase wattless component variable Q and from the squared phase current amplitude variable I^2, and

phase resistance values R are determined from $R=P/I^2$ and phase reactance values X are determined from $X=Q/I^2$, and phase impedance values $Z=R+jX$ are thus determined.

In the Abstract:

Please replace the Abstract with the substitute Abstract attached hereto.